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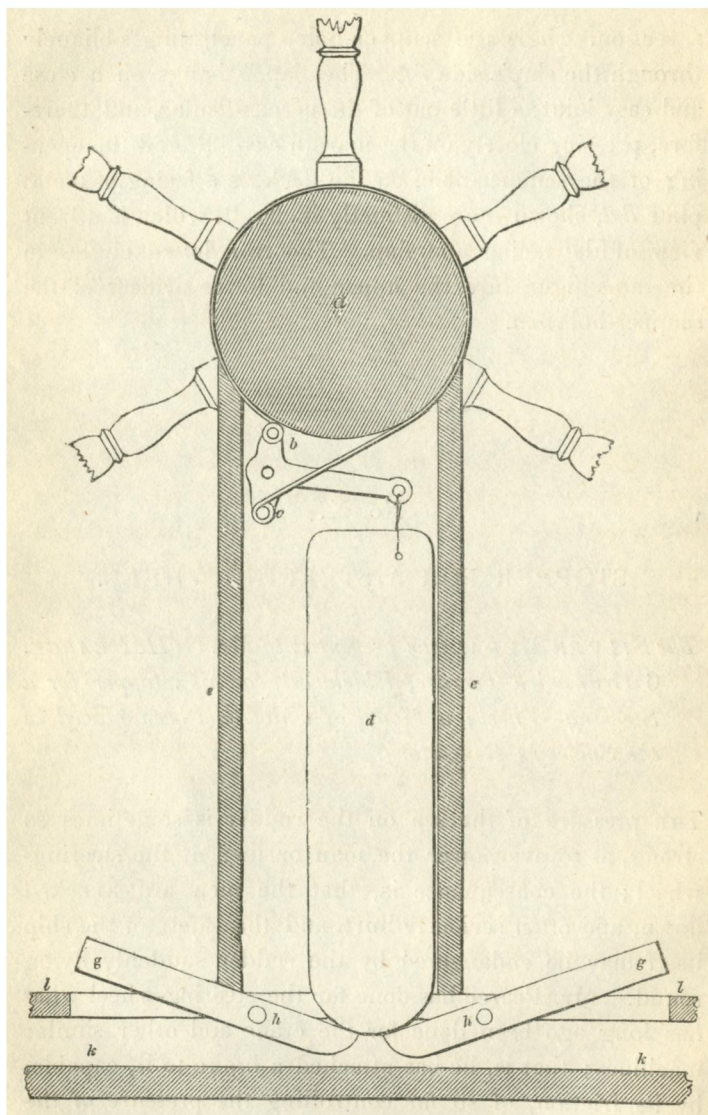
a section, *a a* is the scupper-hole, penetrating obliquely through the ship's side *ff*. The flap *b* hangs on a close and easy joint, a little out of the perpendicular, and, therefore, pressing closely on the margin *c c*. Round the opening of the scupper-hole, on the deck, is a facing of metal plate *dd*, shewn more distinctly in fig. 2, which is a front view of the facing and flap. The two dotted circles in the same figure are the upper and lower orifices of the scupper-hole *a a*.

No. X.

STOPPER FOR A STEERING-WHEEL.

The SILVER MEDAL was presented to Mr. G. H. PEARCE, 6 Brunswick Terrace, Blackwall, for his Stopper for a Steering-Wheel; a Model of which has been placed in the Society's Repository.

THE pressure of the sea on the rudder is sometimes so strong, as to overpower the man or men at the steering-wheel; the consequence is, that the men are knocked down, and often seriously hurt, and the safety of the ship itself may be endangered by the rudder suddenly flying round. Mr. Pearce has done for the steering-wheel what has long ago been done for the crane and other similar machines; that is, he has attached a brake to it, capable, by its friction, of so far controlling the pressure of the rudder, as to enable the helmsman to retain the command of it.



The annexed figure presents a section immediately behind the wheel, and before its post, the spectator looking a-head.

The axis of the wheel *a* is nearly surrounded by a copper band, the extremities of which, *b* and *c*, are attached to the short arms of a T-shaped lever turning on a centre between *b* and *c*, and from the longer arm of which is suspended the leaden weight *d*. The end *c* of the copper band is split, and its halves pass on either side of the T-shaped lever. The whole of this apparatus is contained in a case formed in front of the post, the sides of the case *ee* being shewn in section. It will be seen that the effect of the weight *d*, acting through the instrumentality of the T-shaped lever, is to tighten the copper band round the axis of the wheel, and thus, if not to supersede, at least very much to relieve, the labour of the steersman in holding the wheel during rough weather. When any alteration in the ship's course is required, the wheel may be set free by pressing the foot on either of the levers *gg*, which turn on the centres *hh*, raise the weight *d*, and thus relieve its pressure on the copper band. The levers *gg* may, when required, be kept permanently down, in which case they form a part of the small floor or platform *ll*, raised a few inches above the surface of the deck *kk*.